



供水安全規劃 Water Safety in Hong Kong

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背景资料 Background



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我們的抱負

- 在滿足客戶對優質供水服務的
需求，務求有卓越之表現



• OUR VISION

- To excel in satisfying customers' needs for the provision of quality water services



主要工作及職務

Principal Functions and Services

- 策劃有關水源發展及供水系統事宜
To plan and manage water resources and water supply systems
- 設計及興建水務設施
To design and construct waterworks
- 供水及分配系統的操作及維修保養事宜
To operate and maintain water supply and distribution systems

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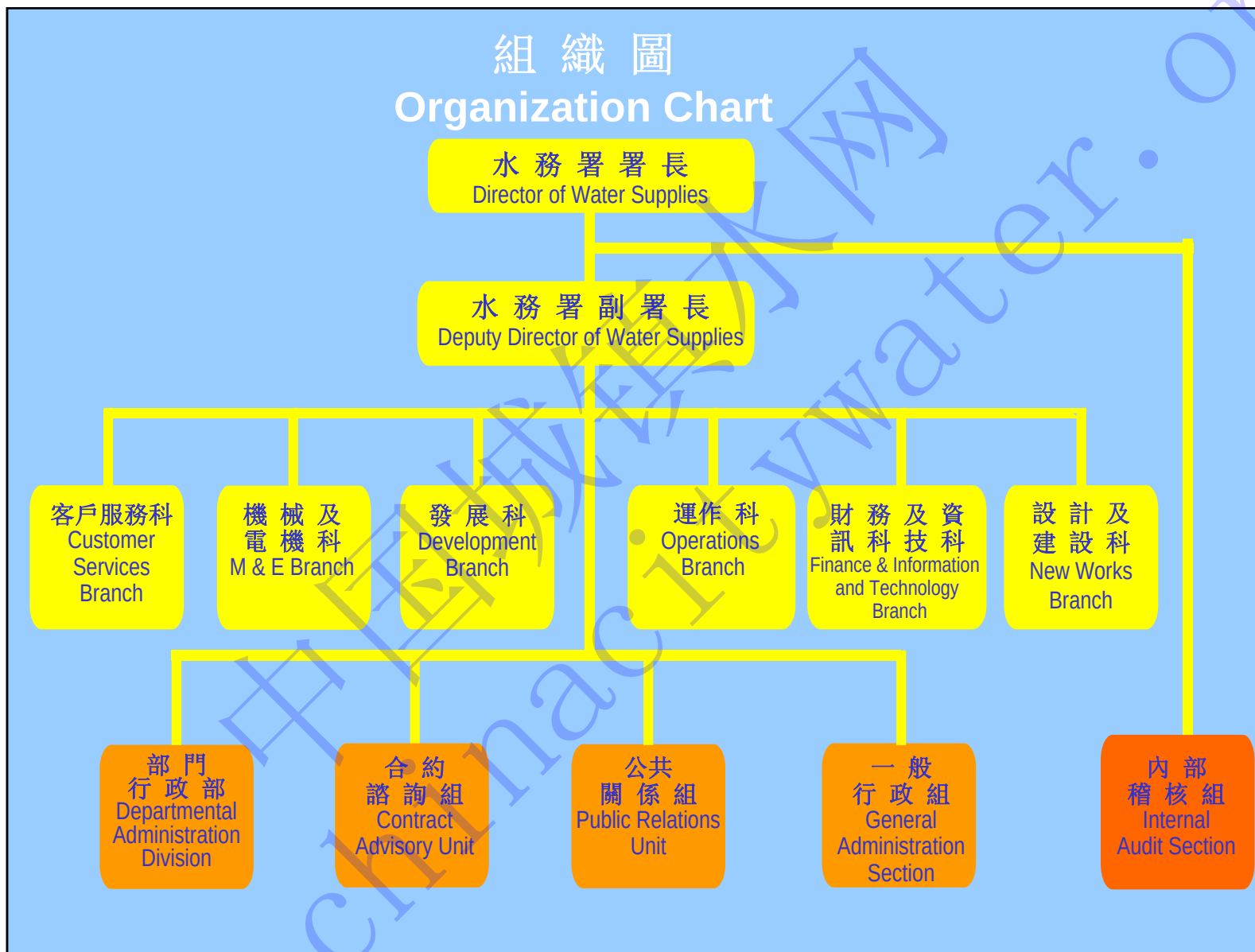


主要工作及職務

Principal Functions and Services

- 食水水質控制
To control the quality of water supply to customers
- 提供客戶服務及執行水務設施條例
To provide customer services and to enforce the Waterworks Ordinance

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便覽 Key Facts

人口 Population	6.90	百萬 million
地方面積 Area	1,100	平方公里 sq. km
用水帳戶 No. of Accounts	2.60	百萬 million
水庫總容量(17水庫) Storage Capacity (17 Reservoirs)	586	百萬立方米 million cubic metres (MCM)
平均雨水收集量 Average Catchment Yield	295	百萬立方米/年 MCM per annum
2004 淡水耗用量 2004 Fresh Water Consumption	955	百萬立方米 MCM
2004 海水耗用量 2004 Sea Water Consumption	255	百萬立方米 MCM



便覽

Key Facts

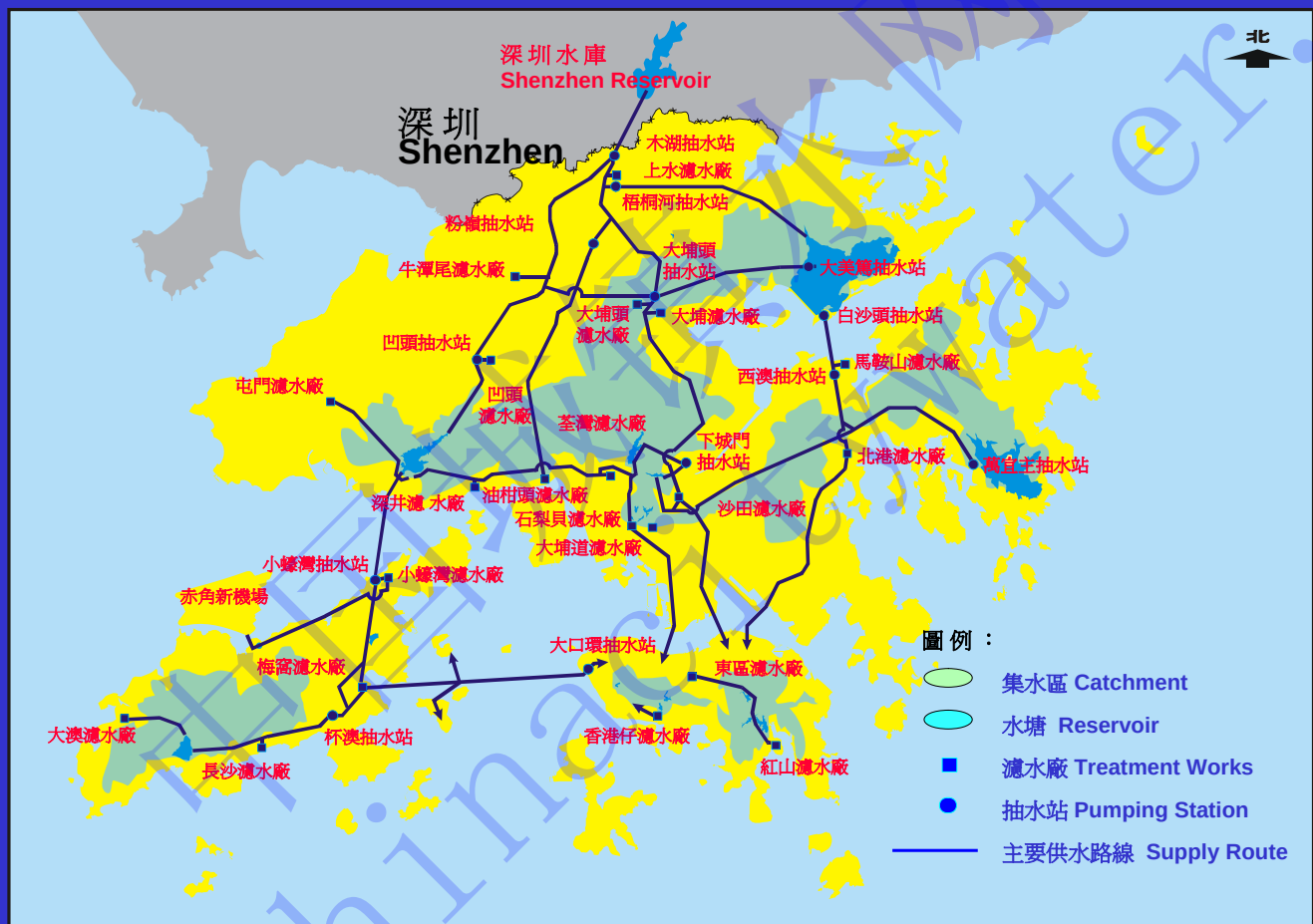
輸水隧道 Water Tunnels	199	公里 km
引水道 Catchwater	120	公里 km
抽水站 Pumping Stations	180	座 nos.
濾水廠 Water Treatment Works	21	座 nos.
總濾水日產量 Total Treatment Capacity	4.08	百萬立方米/日 MCM per day
配水庫 Service Reservoir	202	座 nos.
水管 Water Mains	7,442	公里 km

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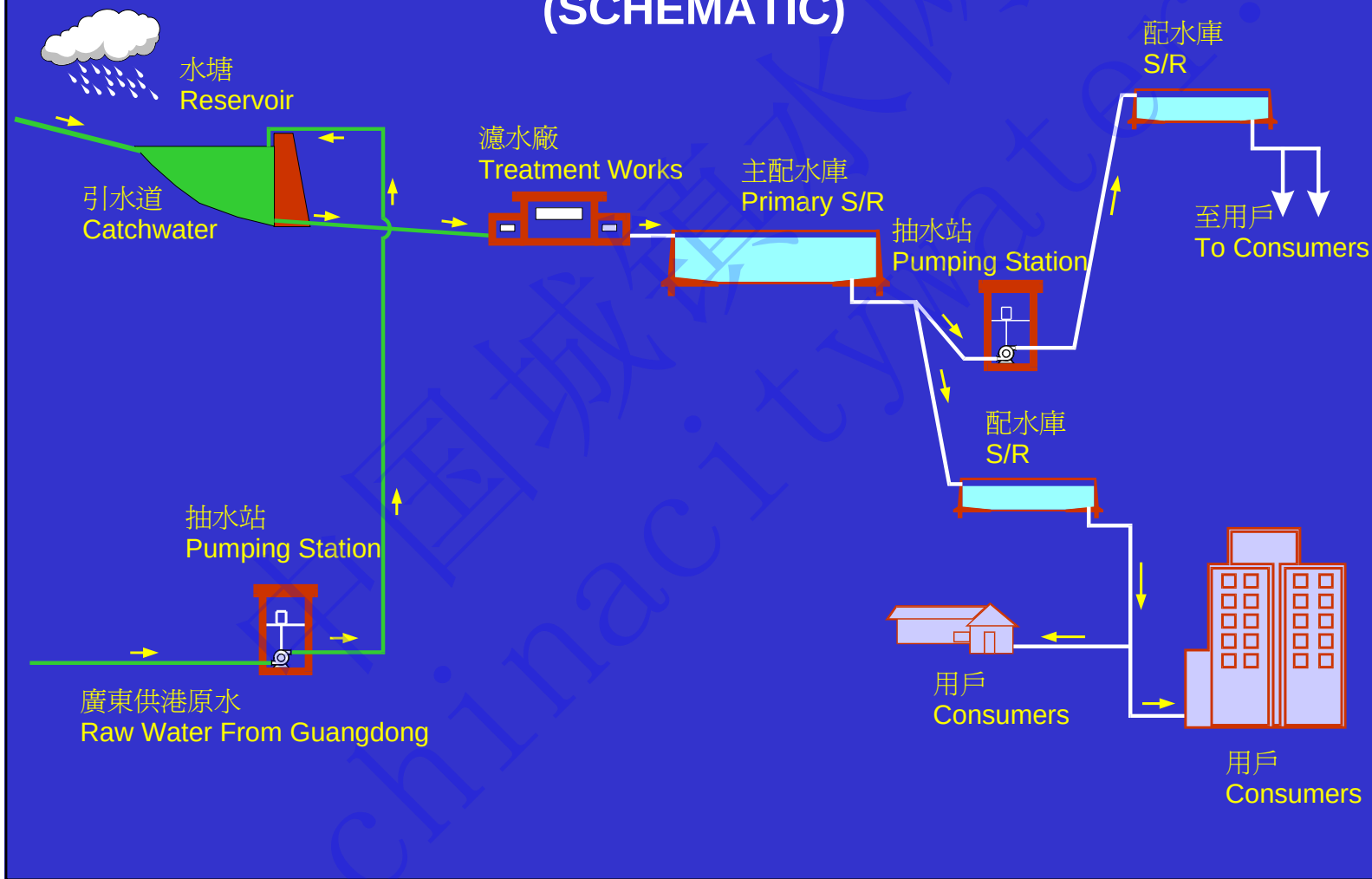


香港主要供水系統 PRINCIPAL WATER SUPPLY SYSTEM IN HONG KONG



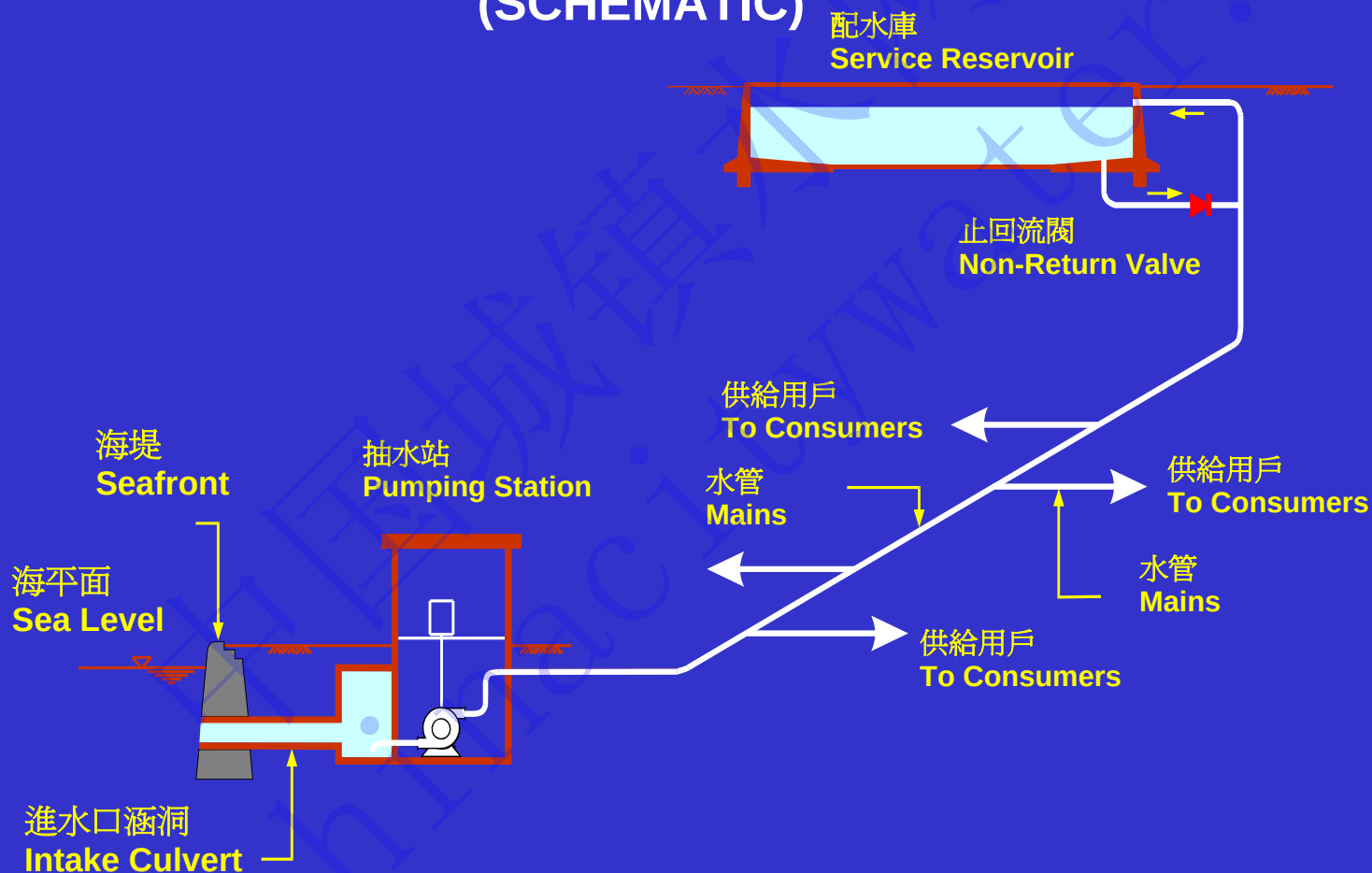


典型食水供應系統 (示意圖) A TYPICAL FRESH WATER SUPPLY SYSTEM (SCHEMATIC)





典型海水供應系統 (示意圖) A TYPICAL SEA WATER SUPPLY SYSTEM (SCHEMATIC)





供水安全事宜 Water Safety Issues



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保護水源 Water Resources Protection

本地 Local

- 以立法形式嚴格控制集水區範圍內的污染
Stringent pollution control through legislation

水務設施條例	Waterworks Ordinance
郊野公園條例	Country Parks Ordinance
水污染管制條例	Water Pollution Control Ordinance
城市規劃條例	Town Planning Ordinance





保護水源

Water Resources Protection

- 經常監察巡視引水道和清理垃圾
Regular surveillance inspection and cleaning of catchment
- 抽取水庫樣本作測試
Sampling in impounding reservoirs for testing





保護水源

Water Resources Protection

東江供水

Dongjiang Water

- 與廣東省方面緊密合作, 確保來水水質符合國家水質標準第 II 類
Cooperation with Guangdong side to ensure water of Class 2 Water Quality Standard
- 在木湖抽水站抽取測試樣本
Sampling in Muk Wu Pumping Station
- 密封式輸水管道
Closed Aqueduct System



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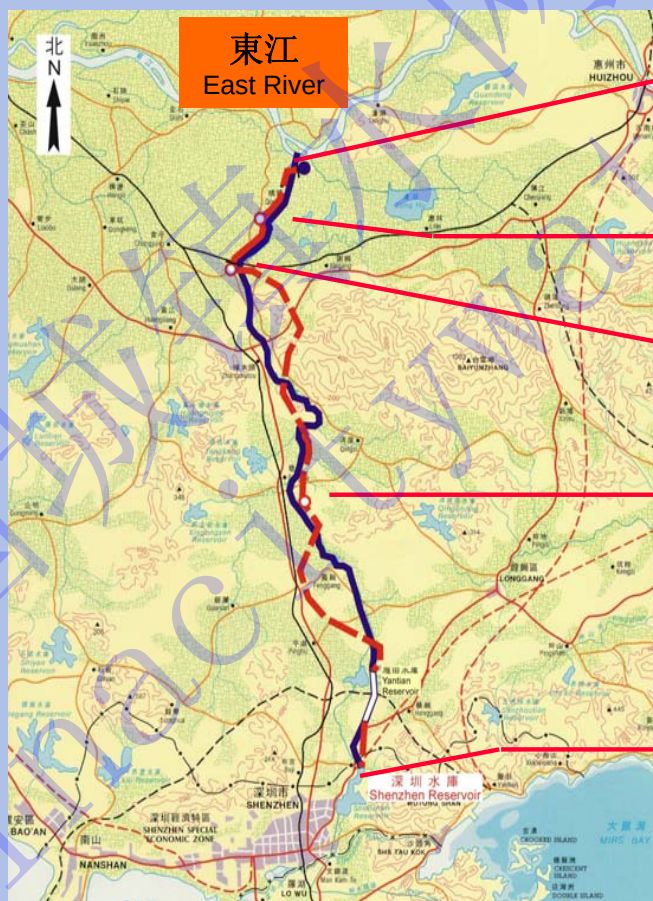


東深供水系統 - 平面路線圖 Dongshen Water Supply System - Supply Route

全長 Total Length = 59km

LEGEND

-  原輸水河道
Original Route
-  密封管道
Closed Aqueduct
-  原有泵站
Original P/S
-  密封管道泵站
New P/S



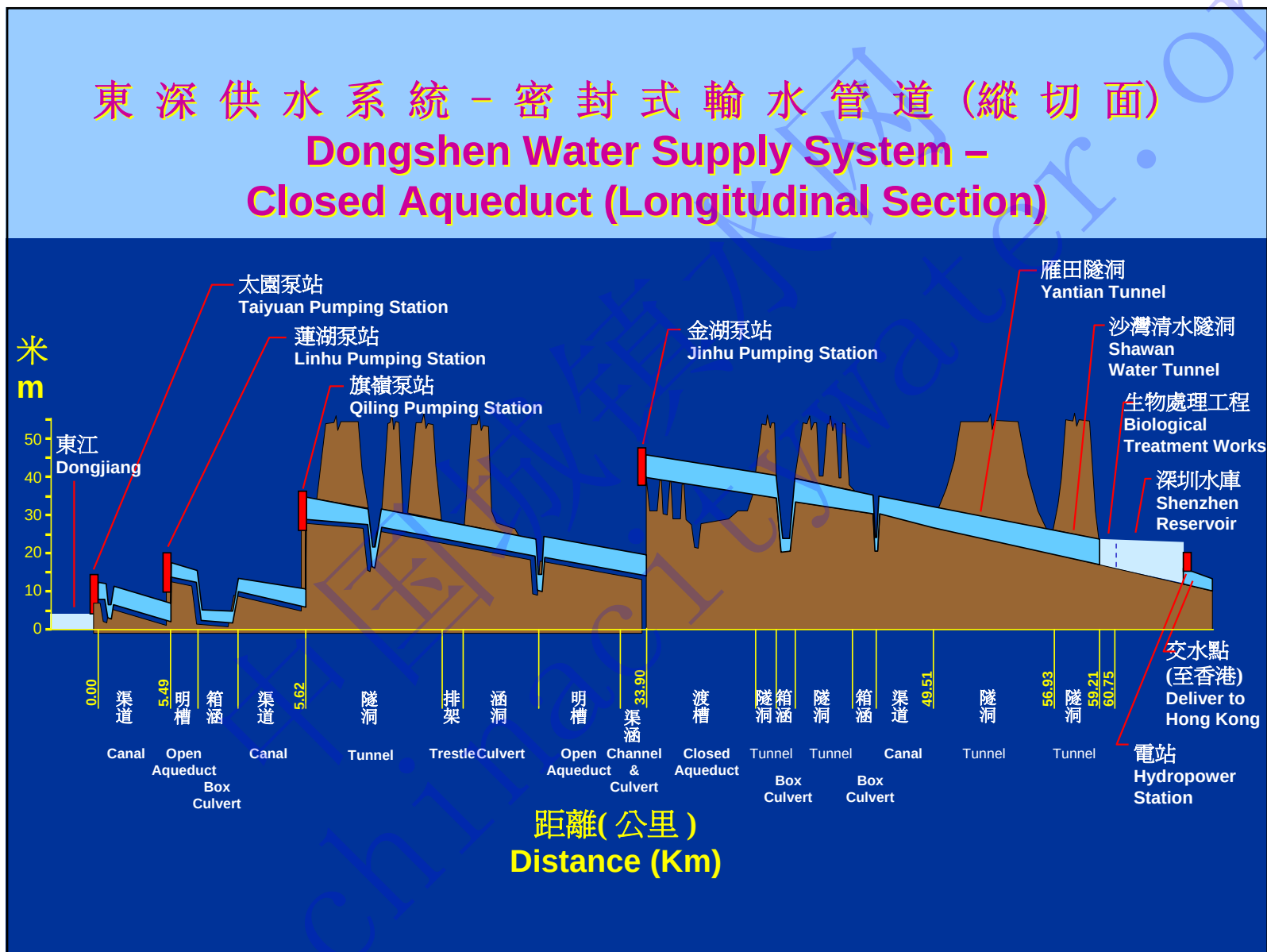
太園站
Taiyuan Pumping Station

蓮湖站
Linhu Pumping Station

旗嶺站
Qiling Pumping Station

金湖站
Jinhu Pumping Station

深圳水庫
Shenzhen Reservoir





供水系統內的質量保證 Quality Assurance in Supply & Distribution System

食水水質目標

- 供應至客戶供水接駁位置的食水符合世界衛生組織所定的指引標準

FRESH WATER QUALITY TARGET

- The water supplied to the customers at the connection points complies with the guideline standards of World Health Organization

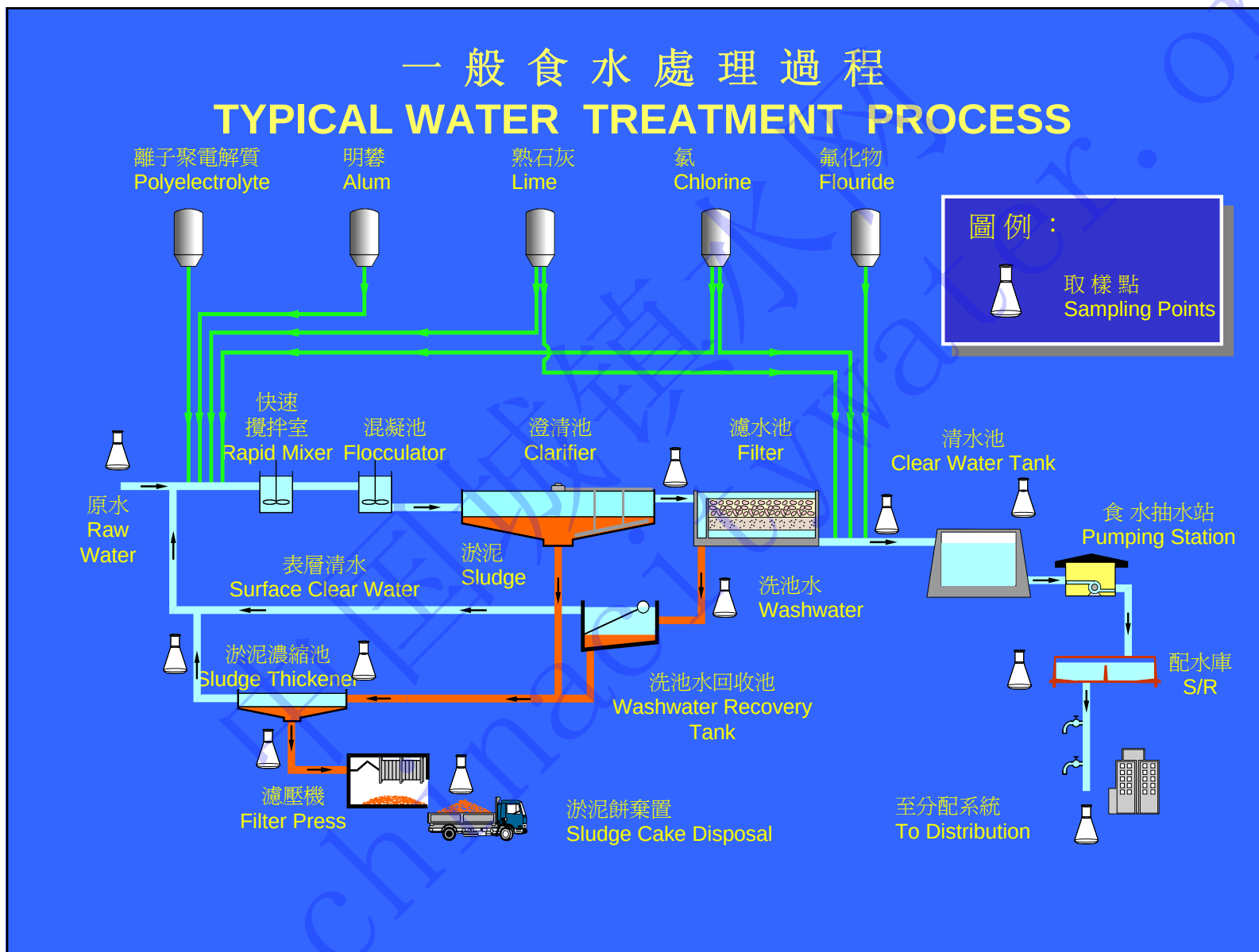
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供水系統內的質量保證 Quality Assurance in Supply & Distribution System

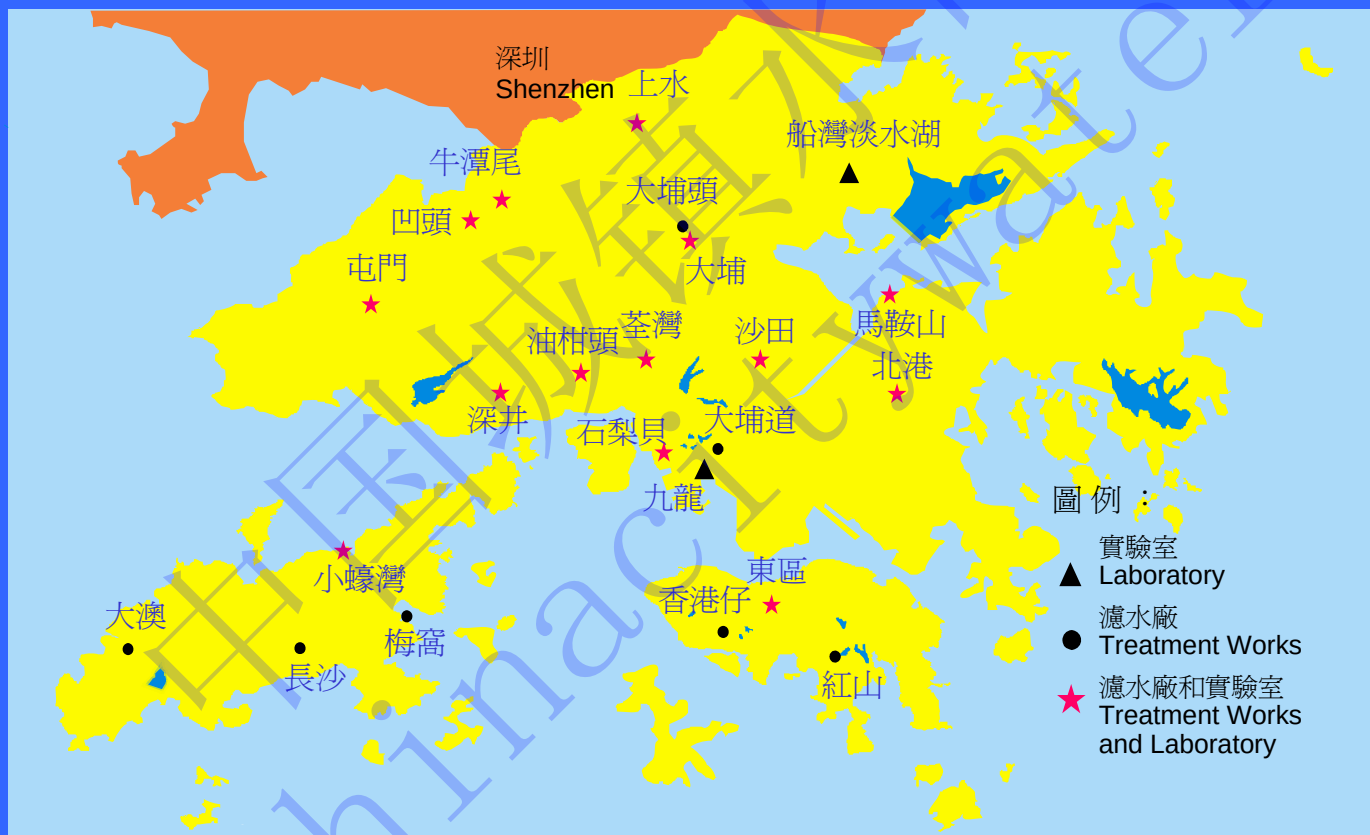
- 在各濾水廠以聯機分析儀監察水質
On-line monitoring of water quality in water treatment works
- 化驗室資訊管理系統
Laboratory Information Management System
- 在配水庫、分配系統及客戶水龍頭抽取水樣本化驗
Sampling in service reservoirs, distribution system and consumers' taps

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濾水廠和實驗室的分佈圖 DISTRIBUTION MAP WATER TREATMENT WORKS & LABORATORIES





水管更換及復修計劃

Water Mains Replacement and Rehabilitation

- 已使用**逾30年**以上水管**超過3千公里**
>3,000km mains in use for >30 years
- 計劃在**15年**內更換或復修約**3千公里**長的水管以改善供水系統情況從而維持合理的客戶服務水平包括水的可飲性質
To replace or rehabilitate about 3 000 kilometres of aged water mains in 15 years to improve the condition of the water supply network so as to maintain a reasonable level of services to consumers including potability of fresh water supply





水管更換及復修計劃

Water Mains Replacement and Rehabilitation

- 第一階段工程已於**2000**年展開
Stage I works commenced in 2000
- 工程總開支預算約**12.8**億美元
Estimated Cost = US\$1.28 billion
- 工程完成後可有效減低水管爆破的數目及因滲漏導致的失水量
Upon completion of works, there should be reduction in main burst occurrence and loss of water due to leaks in pipework





公眾參與

Public Participation

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水質事務諮詢委員會 Advisory Committee on the Quality of Water Supplies (ACQWS)

提高透明度
Enhance Transparency

推動公眾參與
Promote Public Participation





水質事務諮詢委員會

ACQWS

- 公元二千年成立
Formed in 2000
- 十八位委員包括政府官員、地區和環保組織成員、學者及專業人士
18 members including government officials, members from local districts and green groups, academics and professionals
- 定期開會討論水質事宜
Regular meeting for discussion on water quality issues
- 每年到廣東省訪問了解保護東江水源工作最新情況
Annual visit to Guangdong Province to appreciate the latest protective measures for Dongjiang water source

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食水系統優質維修認可計劃 Fresh Water Plumbing Quality Maintenance Recognition Scheme (FWPQMRS)

- 於二零零二年七月開始推行
Launched in July 2002
- 鼓勵樓宇業主妥善維修水管系統 To
encourage proper maintenance of
internal plumbing systems in buildings
- 評核準則：每三個月檢查及清洗水箱 + 每年抽取的水樣本通過測試
Certification Criteria : 3-monthly
inspection and cleaning + annual
water sample test



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食水系統優質維修認可計劃 FWPQMRS

- 已簽發証書超過三千張
No. of certificates issued > 3,000
- 受惠於此計劃的用戶數目逾八十一萬八千個單位
No. of households benefited by the Scheme > 818,000 (as at 30.6.2005)



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前 瞻

Way Forward

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供水安全計劃 Water Safety Plan

- 跟 據 二 零 零 四 年 版 的 世 界 衛 生 組 織 指 引, 採 用 風 險 評 估 方 法 去 優 化 目 前 的 措 施
Enhance existing measures with the use of risk assessment technique based on 2004 WHO Guidelines
- 與 本 港 的 衛 生 署 緊 密 合 作 , 釐 定 衛 生 基 本 指 標
Close co-operation with Department of Health in setting health based targets





供水安全計劃 Water Safety Plan

- 覆核及發展新的分析方法
Revalidate and develop new analytical methods
- 針對集水區監控及東江水管理方面，向廣東當局提出設立聯絡機制
Initiate liaison with Guangdong on catchment control and management for Dongjiang water



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供水安全計劃 Water Safety Plan

- 以兩年時間完成編寫「供水安全計劃」，計劃分成三個層面，包括全部門的一般計劃，不同運作分區的計劃及個別濾水廠的計劃
Develop Water Safety Plan (WSP) under a 24-month programme in three different levels, ie. department, regional operations and individual water treatment works
- 擬定在二零零六年較後時間實施整套計劃 Target implementation = late 2006
- 依二零零四年版的世界衛生組織指引監督檢定計劃的推行
Surveillance arrangement in accordance with 2004 WHO Guidelines



總 結

Conclusions

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供水安全規劃

Water Safety in Hong Kong

- 供水安全保障對市民健康極其重要，水務署責無旁貸
WSD is responsible for ensuring water safety, a critical element for the good health of people.
- 供水安全措施須在供水各環節包括水源、水處理、分配以致用戶水龍頭確實執行
Safety measures begin from source, water treatment, supply system and then to taps
- 用戶應參與保障供水安全
Involvement of our customers
- 符合國際標準的供水安全計劃
Water Safety Plan of international standard

